



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,968	12/30/2004	Henrik Siegle	10191/3818	7322
26646	7590	03/12/2007	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			LEDYNH, BOT L	
			ART UNIT	PAPER NUMBER
			2862	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/12/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/519,968	SIEGLE ET AL.	
	Examiner Bot LeDynch	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 December 2006.  
 2a) This action is **FINAL**.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 10,11 and 13-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 10-11 and 13-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/19/06</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-11 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Xue et al (6144534). Xue et al discloses the same invention as claimed: MR layer stack 52 (including other layers underneath); hard magnetic layers 74, 78 (of 58 and 60) made of CoCrPt; soft layer 76 made of FeNi alloy. See thicknesses at col.6 lines 56-60, col.7 lines 25-26; Figs.2 and 9-11, and related paragraphs.

### ***Response to Amendment***

Applicant's arguments filed 12-19-06 have been fully considered but they are not persuasive. Applicant argues that (1) Xue et al does not discloses a magnetoresistive stack, (2) the MR element of Xue et al seems not to work substantially on the basis of either a GMR effect or an AMR effect, (3) Xue et al does not discloses a layer array being situated on and/or below a magnetoresistive stack, (4) the MR element 66 is situated next to hard magnets 58 and 60, and (5) regions 62 and 64 of element 52 are not magnetoresistive.

The Examiner disagrees.

As to (1) Xue et al discloses a magnetoresistive layer stack 52 which includes other layers underneath (not shown) or above it (not shown) (see col. 3 in lines 64-67; in

Art Unit: 2862

lines 63-67 of col. 7 and lines 1-14 of col.8, it is also taught that other layers on top of layer 52 and beneath layer 74; these layers together with MR layer 52 comprise the magnetoresistive layer stack). As to (2), MR element 52 of Xue et al is made of a NiFe alloy which is an AMR element (see the first three lines of paragraph 0003 of Fukuzawa et al (20040121185 A1). As to (3), Xue et al's layer array which comprises hard magnetic layers 74 and 78 and a soft magnetic layer 76 is situated on the magnetoresistive layer stack (52 and other layer (not shown) as discussed above). As to (4), the magnetoresistive layer stack is composed of 52 and other layers as discussed in (1) and (3) above. As to (5), the magnetoresistive layer stack which comprises 52 and other layers as discussed above is magnetoresistive.

All new references are cited for showing that NiFe alloys are AMR.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

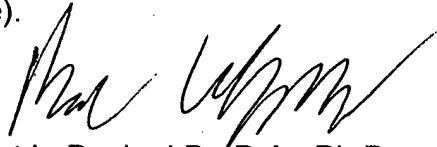
***Conclusion***

Art Unit: 2862

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Bot LeDynh whose telephone number is 5712722231. The Examiner normally does not work on Fridays. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 5712722180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bot LeDynh, J.D., D.A., Ph.D.  
Primary Examiner

BL/ 2007